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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,576	09/30/2003	Haitao Wu	59864.00098 (NC31519)	7887

32294 7590 08/10/2007  
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EXAMINER
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NANO, SARGON N

ART UNIT	PAPER NUMBER
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2157

MAIL DATE	DELIVERY MODE
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08/10/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/676,576

Applicant(s)

WU ET AL.

Examiner

Sargon N. Nano

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 5/22/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 - 28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                 | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

1. This office action is responsive to amendment filed on May 22, 2003. Claims 1, 8, 15 – 17, 22, 27 and 28 are amended . Claims 1 – 28 are pending examination.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Tartarelli et al. U.S. Patent Application Publication 2003/0086413 (referred to hereafter as Tartarelli).

As to claim 1, Tartarelli teaches a method, comprising:

receiving a packet (see paragraph 0003, Tartarelli discloses packets received at the edge of an internet service provider);

determining a number of tokens in a token bucket (see paragraph 0066 Tartarelli discloses the occupancy of tokens in a token bucket)

calculating a probability for marking the received packet with a precedence level when the number of tokens in the token bucket are between a first threshold and a

Art Unit: 2157

second threshold (see paragraph 0065 Tartarelli discloses a marking method that is based on random probability); and

marking packet for a particular forwarding treatment using at least one token bucket (see paragraph 0074 – 0077 Tartarelli discloses marking and forwarding of packets according to set threshold)

As to claim 2, Tartarelli teaches the method of claim 1, further comprising marking the packet with a high precedence level if the number of tokens exceeds a first threshold (see paragraph 0077).

As to claim 3, Tartarelli teaches the method of claim 1, further comprising marking the packet with a low precedence level if the number of tokens is less than a second threshold, wherein the second threshold is lower than the first threshold (see paragraph 0013).

As to claim 4, Tartarelli teaches the method of claim 1, further comprising marking the packet with a low precedence value or a high precedence value based on the calculated probability when the number of tokens in the token bucket are between the first and second thresholds (see paragraphs 0013, 0065 and 0077).

As to claim 5, Tartarelli teaches the method of claim 4, wherein the probability of marking the received packet with a low precedence is lowered when a previously received packet was marked with a low precedence (see paragraph 0023).

As to claim 6, Tartarelli teaches the method of claim 1, wherein the number of tokens in the token bucket are inversely proportional to the amount of network traffic (see paragraph 0023).

Art Unit: 2157

As to claim 7, Tartarelli teaches the method of claim 6, wherein the probability of marking the received packet with a low precedence is inversely proportional to the number of tokens in the token bucket (see paragraph 0023).

As to claim 8, Tartarelli teaches a packet marking system, comprising:

a receiving engine capable of receiving a packet for marking (see paragraph 0003);

a marker engine, communicatively coupled to the receiving engine, capable of determining the number of tokens in a token bucket (see paragraphs 0013 and 0066); and

a probability engine, communicatively coupled to the marker engine, capable of calculating a probability for marking the received packet with a precedence level when the number of tokens in the token bucket are between a first threshold and a second threshold (see paragraph 0065); wherein

the marking engine is configured to mark packet for a particular forwarding treatment using at least one token bucket (see paragraph 0074 – 0077).

As to claim 9, Tartarelli teaches the system of claim 8, wherein the marker engine is further capable of marking the packet with a high precedence level if the number of tokens exceeds a first threshold (see paragraph 0077).

As to claim 10, Tartarelli teaches the system of claim 8, wherein the marker engine is further capable of marking the packet with a low precedence level if the

Art Unit: 2157

number of tokens is less than a second threshold, wherein the second threshold is lower than the first threshold (see paragraph 0013).

As to claim 11, Tartarelli teaches the system of claim 8, wherein the marker engine is further capable of marking the packet with a low precedence value or a high precedence value based on the calculated probability when the number of tokens in the token bucket are between the first and second thresholds (see paragraphs 0013, 0065 and 0077).

As to claim 12, Tartarelli teaches the system of claim 11, wherein the probability of marking the received packet with a low precedence is lowered when a previously received packet was marked with a low precedence (see paragraph 0023).

As to claim 13, Tartarelli teaches the system of claim 8, wherein the number of tokens in the token bucket are inversely proportional to the amount of network traffic (see paragraph 0023).

As to claim 14, Tartarelli teaches the system of claim 13, wherein the probability of marking the received packet with a low precedence is inversely proportional to the number of tokens in the token bucket (see paragraph 0023).

As to claim 15, Tartarelli teaches a computer-readable medium having stored thereon instructions for a processor to execute a method, the method comprising:

receiving a packet (see paragraph 0003);

determining a number of tokens in a token bucket (see paragraph 0013 and 0066); and

Art Unit: 2157

calculating a probability for marking the received packet with a precedence level when the number of tokens in the token bucket are between a first threshold and a second threshold (see paragraph 0065); and

marking packet for a particular forwarding treatment using at least one token bucket (see paragraph 0074 – 0077 Tartarelli discloses marking and forwarding of packets according to set threshold).

As to claim 16, Tartarelli teaches a system comprising:

means for receiving a packet (see paragraph 0003) ;

means for determining a number of tokens in a token bucket (see paragraph 0065); and

means for calculating a probability for marking the received packet with a precedence level when the number of tokens in the token bucket are between a first threshold and a second threshold(see paragraph 0065) ;

marking packet for a particular forwarding treatment using at least one token bucket (see paragraph 0074 – 0077 Tartarelli discloses marking and forwarding of packets according to set threshold).

As to claim 17, Tartarelli teaches a method, comprising:

receiving a packet (see paragraph 0003);

determining a number of tokens in a first token bucket(see paragraph 0066);

determining a precedence value for marking the packet based on the determined number of tokens(see paragraph 0065) ; and

upgrading the determined precedence value to a higher precedence value when a pre-specified number of previously received packets were marked with the same determined precedence value (see paragraphs 0023 - 0029) .

As to claim 18, Tartarelli teaches the method of claim 17, wherein the previously received packets were marked with the same determined precedence value in succession (see col. 9, lines 5 – 16).

As to claim 19, Tartarelli teaches the method of claim 17, wherein the precedence value is inversely proportional to the determined number of tokens (see paragraph 0023).

As to claim 20, Tartarelli teaches the method of claim 17, further comprising determining a number of tokens in a second token bucket and wherein the determining a precedence value is based on the number of tokens in the second token bucket if the first token bucket has tokens less than a size of the received packet (see paragraphs 0023 – 0027).

As to claim 21, Tartarelli teaches the method of claim 17, further comprising marking the packet with the determined precedence value or the upgraded precedence value (see paragraph 0023) .

As to claim 22, Tartarelli teaches a packet marking system, comprising:

a receiving engine capable of receiving a packet (see paragraph 0023) ;  
a marker engine, communicatively coupled to the receiving engine, capable of determining a number of tokens in a first token bucket (see paragraph 0066) and capable of determining a precedence value for marking the packet based on the



Art Unit: 2157

determined number of tokens (see paragraph 0065) ; and an upgrade engine, communicatively coupled to the marker engine, capable of upgrading the determined precedence value to a higher precedence value when a pre-specified number of previously received packets were marked with the same determined precedence value(see paragraph 0023 – 0029 ) and marking packet for a particular forwarding treatment using at least one token bucket (see paragraph 0074 – 0077 Tartarelli discloses marking and forwarding of packets according to set threshold).

Claims 22 – 28 do not teach or define any new limitation other than the above claims 1 – 22 and therefore are rejected for similar reasons.

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 2157

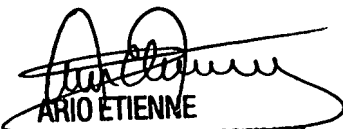
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sargon N. Nano whose telephone number is (571) 272-4007. The examiner can normally be reached on 8 hour.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sargon Nano  
Feb. 15, 2007

  
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